

IN THE SPECIFICATION:

Please amend paragraph [0036] as follows:

[0036] The antenna unit 10 has a bar shaped main body installed in the erected state at the right roadside of the traffic lane. The main body is arranged at the position (at the right side in the vehicle traveling direction) of the roadside so that a vehicle driver who once stopped a vehicle entering into the traffic lane is able to reach it by extending the arm through the window. In this main body, the antenna portions 10UA, 10MA and 10LA and displays are arranged at the upper, middle and lower stages, respectively as shown in FIG. 4A. The antenna portion 10UA and an ~~antenna~~ display portion ~~10UA~~ 10UD on the upper stage are for vehicles of which seats are relatively high such as large vehicles, buses, etc. The antenna portion 10MA and a display portion ~~10MA~~ 10MD on the middle stage are for vehicles in medium level height such as residential vehicles, etc. The antenna portion 10LA and a display portion 10LD on the lower stage are for vehicles having relatively lower seats such as passenger cars, light vehicles, bikes, etc. The display portions 10UD, 10MD and 10LD light, blink or display messages when the card processing function (the wireless communication function) of the antenna portions 10UA, 10MA and 10LA selected by the controller 19 are efficient. Messages are such that, for example, "Please hold up your IC card over this position", "Please wait a little until a preceding vehicle is finished", etc.

Please amend paragraph [0048] as follows:

[0048] The passing ticket issuer 13 is provided with plural ticket issuing units in the vertical direction (at different heights). The passing ticket issuers 13 are arranged side by side with the antenna units 10 as shown in FIG. 4A and the ticket issuing units 13U, 13M and 13L are arranged at the upper, middle and lower stages in the main body, respectively. The ticket issuing unit 13U at the upper stage is for vehicles having relatively higher seats such as large vehicles, buses, etc. The ticket issuing unit 13M at the middle stage is for vehicles in middle height such as residential vehicles, etc. The ticket issuing unit ~~13K~~ 13L at the lower stage is for vehicles having relatively lower seats such as passenger car, light vehicle, bike, etc. These plural ticket issuing units 13U, 13M and 13L of the passing ticket issuer 13 are called as a first passing ticket issuing unit. The ticket issuing units 13U, 13M and 13L have the functions to issue passing tickets under the control of the controller 19, evacuate issued passing tickets temporarily as the case may be and thereafter, fully recover or reissue passing tickets. "As the case may be" are such cases when an IC card was held up over either one of

the antenna portions 10UA, 10MA or 10LA or when the processing of an IC card held up over the antenna portions ~~10US~~ 10UA, 10MA and 10LA was not properly completed.

Please amend paragraph [0050] as follows:

[0050] That is, the ticket issuing units 13U, ~~13MA~~ 13M and 13L of the passing ticket issuer 13 are corresponding to the antenna portions 10UA, 10MA and ~~10L~~ 10LA of the antenna unit 10, respectively and are arranged at the closed positions, and the ticket issuing unit 14A of the passing ticket issuer for left handle vehicles are corresponding to the antenna portion 11A of the antenna unit 11 and arranged at the closed positions.

Please amend paragraph [0058] as follows:

[0058] The antenna for non-contact type IC 53 is for making the wireless communication with the antenna ~~unit~~ portions 10UA, 10MA, 10LA and 11A of the antenna units 10 and 11, and receives radio wave transmitted from the antenna portions 10UA, 10MA, 10LA and 11A of the antenna units 10 and 11.

Please amend paragraph [0060] as follows:

[0060] The exit system 70 is composed of antenna units 35 and 36, the vehicle class discriminator 32, a roadside display ~~23m~~ 23 a sheet processor 24, a receipt issuer 25, the start detector 26, the start controller 27, the card processor, the controller 29, an antenna for ETC 31, vehicle detectors 33a and 33b for ETC and a traffic lane controller for ETC 39 as shown in FIG. 6 and FIG. 7. Further, the sheet processor 24, the receipt issuer 25, the controller 29 and the card processor 30 are arranged in an official in charge booth 36 provided at the roadside.

Please amend paragraph [0071] as follows:

[0071] Antenna units 35 and 36 installed outside a toll booth 36 are composed of an main body with an inside main body 41a and an outside main body 41b connected with communication lines, a controller 43, a power source 44, the antenna portions 35UA, 35MA, 35LA and 36A, display portions 35UD, 35MD, 35LD and 36D as shown in FIG. 8. The inside main body 41a is arranged in the controller 29 and houses the controller 43 and the power source 44. The controller 43 is connected (interfaced with) to the control module 28 of the controller 29. The controller 43 totally controls the entirety of this system and

executes the card process of IC cards that are subjects for process by communicating with the control module 28. The power source 44 supplies power to each unit of the system. In the outside main body 41b, the antenna portions 35UA, 35MA, 35LA and 36A, the display portions 35UD, 35MD, 35LD and 36D are housed. The antenna portions ~~35US~~ 35UA, 35MA, 35LA and 36A perform the wireless communication with IC cards. The display portions 35UD, 35MD, ~~35LA~~ 35LD and 36D display matters relative to use of IC card, process state, error contents, etc.

Please amend paragraph [0072] as follows:

[0072] The antenna unit 35 has the bar shaped outside main body 41b that is installed in the erected state at the right roadside of the traffic lane as shown in FIG. 9A. In the outside main body 41b, the antenna portions 35UA, 35MA, 35LA and the display portions 35UD, 35MD and 35LD are arranged on the upper, middle and lower stages, respectively. The antenna portion 35UA and the display portion 35UD provided on the upper stage are for vehicles having relatively higher seats such as large vehicles, buses, etc. The antenna portion 35MA and the display portion 35MD on the middle stage are for vehicles in such a height as residential vehicles, etc. The antenna portion 35LA and the display portion 35LD on the lower stage are for vehicles having relatively lower seats such as passenger cars, light vehicles, bikes, etc.

Please amend paragraph [0074] as follows:

[0074] Further, the alignment of the antenna units 35 and 36 are simply one example and all component units may be arranged in the outside main body depending on the installing conditions or the combination of the component units in the main body may be changed. For example, the antenna portions ~~35US~~ 35UA, 35MA, 35LA and 36A can be separated from the main body including the controller 43 and a display 47, and the antenna portions 35UA, 35MA, 35LA and 36A and the display portions 35UD, 35MD, 35LD and 36D may be arranged at separate positions (the outside), respectively.

Please amend paragraph [0099] as follows:

[0099] For example, in the error case of ① wherein the on-board unit peculiar information reading process can be executed normally but the writing process of entrance information, etc. can not be executed properly (Yes in S205), ETC entrance process result

information showing the abnormal ETC ~~wiring~~ writing process by the antenna for ETC 21a, on-board unit peculiar information and vehicle class discriminated information are sent to the IC card from the antenna for ETC 21a in addition to the entrance information. In the IC card, the operating portion records the information in a semiconductor memory of the IC chip 51. At the same time, the operating portion records using history information including use of a non-contact IC card in the semiconductor memory (S206). Further, when the IC card is inserted again into the on-board unit, the operating portion of the IC card sends the individual information (ID No.) of the IC card to the on-board unit.

Please amend paragraph [0101] as follows:

[0101] As this is the error case ① not the error case ④ (No in S208), the operating portion compares and collates the on-board unit peculiar information first read in the ETC process by the antenna for ETC 21a with the on-board unit information read from the on-board unit memory when the IC card was inserted again into the on-board unit (S209). When the match could be confirmed as ~~he~~ the result of the comparison and collation, the operating portion sends the entrance information or the passing history information recorded on the IC card in the non-contact IC card process to the on-board unit (S210).

Please amend paragraph [0102] as follows:

[0102] Further, when a series of IC card processes are finished, the controller 19 notifies the traffic lane controller for ETC 20 of the completion of the processes. The traffic lane controller for ETC 20 controls the start controller 17 to open ~~he~~ the gate bar and the roadside display 15 to display the approval of passing. Thereafter, when the starting of the vehicle is detected by the start detector 16 or the vehicle detector for ETC 22d (S211), the traffic lane controller for ETC 20 closes the traffic lane by closing the gate bar of the start controller 17.

Please amend paragraph [0118] as follows:

[0118] When the ETC exit process by the antenna for ETC 31 is normally finished (OK of S405), the traffic lane controller for ETC 39 controls the start controller 27 to open the gate bar ~~27~~ 27a or 27b and the roadside display 23 to display the approval of passing. Thereafter, when the starting of the vehicle is detected by the start detector 26 or the vehicle detector for ETC 33b (S406) the traffic lane controller for ETC 39 closes the traffic lane by

closing the gate bar 27a or 27b of the start controller 27. Further, when an error is generated in the ETC exit process by the antenna for ETC 31 (NG of S405), the traffic lane controller for ETC 39 checks the error contents and induces to the exit abnormal process for ETC and the non-contact type IC card process (S407).

Please amend paragraph [0139] as follows:

[0139] When the process by an official in charge is executed, a user hands ~~the IC card to~~ the IC card to an official in charge. When a passing ticker is available, it is also handed to an official in charge.

Please amend paragraph [0143] as follows:

[0143] When a vehicle entering into the traffic lane (the entrance lane) of a toll road is detected at a tollhouse by a vehicle detector for ETC 22a, the ETC entrance process is executed through the wireless communication by the antenna for ~~ETD-21a~~ ETC 21a. Further, the vehicle class is discriminated by the vehicle class discriminator 12. When no IC card is inserted into an on-board unit at this time, peculiar information of an on-board unit can be read from the on-board unit but the individual information of the card cannot be read at all.

Please amend paragraph [0147] as follows:

[0147] Further, when a user inserts an IC card into the on-board unit in the toll road and the operating portion of the IC card detects the card inserted according to power supply and the communication request (Yes of S508), the operating portion of the IC card compares and collates the peculiar information of the on-board unit with the peculiar information of the on-board unit recorded in the semiconductor memory of the IC card (S510). When the match could be confirmed by this comparison and collation (Match of S510), the operating portion stores (copies) the entrance information by sending it to the memory of the on-board unit from the semiconductor memory (S511) and it becomes possible to execute the normal exit process at the exit when the content of the on-board unit is agreed with the content of the memory of the IC card (S512). Further, when the match could not be confirmed as a result of the comparison and collation (No Match of S510), the operating portion judges there is the possibility for illegal actions such as IC card exchange and gives a warning for illegality (S513). At this time, the information of possibility for illegality is stored in the semiconductor memory of the IC card as the using history. Then, when the exit process is

started, an information to request suspension of the exit process is sent to the antenna for ETC 31 or the antenna units 35 and 36 from the on-board unit.

Please amend paragraph [0149] as follows:

[0149] When the entry of a vehicle into the traffic lane (the exit lane) of the exit tollhouse of a toll road is detected by the vehicle detector for ~~ETD 33a~~ ETC 33a (S601), the wireless communication by the antenna for ETC 31 is started and the traffic lane controller for ETC 39 is informed. The traffic lane controller for ETC 39 directs the antenna for ETC 31 to start the communication. Then, the wireless communication by the antenna for ETC 31 is started and whether the vehicle is equipped with an ETC on-board unit is checked (checking of availability of an ETC on-board unit) (S602). As a result of the checking of availability of ETC on-board unit, when it is confirmed that the vehicle is equipped with an ETC on-board unit, the antenna for ETC 31 executes the ETC exit process (S603). Further, the vehicle class is discriminated by the vehicle class discriminator 32. At this time, if no IC card was inserted into an on-board unit, the on-board unit peculiar information can be read but an individual information of card cannot be read at all likewise the ETC entrance process (S604).

Please amend paragraph [0166] as follows:

[0166] Further, this is an example using a prepaid type IC card with a certain amount pre-charged. When a post paying card having a credit function, etc. is used, a used toll is subtracted later from the account of the IC card based ~~on~~ on the individual card information read at the entrance and exit.